

KOHLER COMPANY

EXECUTIVE ORDER U-R-060-0089

New Off-Road Compression-Ignition Engines Page 1 of 1

Pursuant to the authority vested in California Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)					
2023	PKHXL02.5TCR	1.861, 2.482	Diesel	8000					
SPECIAL	. FEATURES & EMISSION (CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION						
Cooler,	Direct Injection, Turbo Electronic Control Mod circulation, Diesel Oxida	ule, Exhaust Gas	Crane, Loaders, Tractor, Gene	erator Set					

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION			ı	EXHAUST (g/kw-l		OPACITY (%)				
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK	
19 ≤ kW < 56	Tier 4 Final	STD	N/A	N/A	4.7	5.0	0.03	N/A	N/A	N/A	
		CERT			3.9	0.04	0.02				

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

BE IT FURTHER RESOLVED: That for the listed engine models which include engines from different power categories in the same engine family, the manufacturer is complying with the more stringent set of standards from the 37 ≤ kW < 56 power category in conformance with the incorporated Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part 1-D" adopted October 20, 2005 and last amended October 25, 2012.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed on this 6th day of October 2022.

Robin U. Lang, Chief

Emissions Certification and Compliance Division

Polin U. Lang

Attachment: Engine Models EO #: U-R-060-0089 Family: PKHXL02.5TCR Attachment Revised: 9/20/2022

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Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel	Peak Torque - Fuel Units	OBD	GHG	Special	Notes
KDI 1903TCR/18	N/A	N/A	13	1.861	Liters	40.2	horsepower	1800	15.2	lb/hr	141.6	lb-ft	1350	13.4	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/22	N/A	N/A	13	1.861	Liters	48.3	horsepower	2200	18.9	lb/hr	166.0	lb-ft	1500	17.0	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/22A	N/A	N/A	13	1.861	Liters	51.0	horsepower	2200	19.4	lb/hr	166.0	lb-ft	1500	17.0	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/22B	N/A	N/A	13	1.861	Liters	55.0	horsepower	2200	21.4	lb/hr	162.3	lb-ft	1500	16.8	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/25	N/A	N/A	13	1.861	Liters	48.3	horsepower	2500	19.8	lb/hr	166.0	lb-ft	1500	17.0	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/25A	N/A	N/A	13	1.861	Liters	55.0	horsepower	2500	22.1	lb/hr	166.0	lb-ft	1500	17.0	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/26	N/A	N/A	13	1.861	Liters	48.3	horsepower	2600	20.2	lb/hr	166.0	lb-ft	1500	17.0	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/26A	N/A	N/A	13	1.861	Liters	40.2	horsepower	2600	20.6	lb/hr	132.8	lb-ft	1500	17.0	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/26B	N/A	N/A	13	1.861	Liters	56.3	horsepower	2600	23.2	lb/hr	166.0	lb-ft	1500	17.0	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/G18A	N/A	N/A	13	1.861	Liters	32.2	horsepower	1800	12.2	lb/hr	93.7	lb-ft	1800	12.2	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/G18B	N/A	N/A	13	1.861	Liters	44.3	horsepower	1800	16.3	lb/hr	126.9	lb-ft	1800	16.3	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/G18C	N/A	N/A	13	1.861	Liters	49.6	horsepower	1800	18.7	lb/hr	144.6	lb-ft	1800	18.7	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/275	N/A	N/A	13	1.861	Liters	48.3	horsepower	2750	20.9	lb/hr	166.0	lb-ft	1500	17.0	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 1903TCR/G18	N/A	N/A	13	1.861	Liters	40.2	horsepower	1800	15.2	lb/hr	86.3	lb-ft	1800	15.2	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 2504TCR/22	N/A	N/A	14	2.482	Liters	64.4	horsepower	2200	24.7	lb/hr	221.3	lb-ft	1500	21.9	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 2504TCR/22A	N/A	N/A	14	2.482	Liters	73.8	horsepower	2200	26.3	lb/hr	221.3	lb-ft	1500	21.9	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 2504TCR/23	N/A	N/A	14	2.482	Liters	73.8	horsepower	2300	28.6	lb/hr	221.3	lb-ft	1500	21.9	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 2504TCR/25	N/A	N/A	14	2.482	Liters	61.7	horsepower	2500	25.3	lb/hr	206.5	lb-ft	1500	20.6	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 2504TCR/25A	N/A	N/A	14	2.482	Liters	73.8	horsepower	2500	29.7	lb/hr	221.3	lb-ft	1500	21.9	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 2504TCR/26	N/A	N/A	14	2.482	Liters	61.7	horsepower	2600	25.2	lb/hr	206.5	lb-ft	1500	20.6	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 2504TCR/26A	N/A	N/A	14	2.482	Liters	73.8	horsepower	2600	30.0	lb/hr	221.3	lb-ft	1500	21.9	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 2504TCR/G18	N/A	N/A	14	2.482	Liters	59.0	horsepower	1800	21.4	lb/hr	171.9	lb-ft	1800	21.4	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 2504TCR/G18A	N/A	N/A	14	2.482	Liters	63.0	horsepower	1800	23.0	lb/hr	184.4	lb-ft	1800	23.0	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 2504TCR/22B	N/A	N/A	14	2.482	Liters	67.1	horsepower	2200	25.2	lb/hr	221.3	lb-ft	1500	21.8	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 2504TCR/22C	N/A	N/A	14	2.482	Liters	60.3	horsepower	2200	23.2	lb/hr	210.2	lb-ft	1500	20.8	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC
KDI 2504TCR/22D	N/A	N/A	14	2.482	Liters	53.6	horsepower	2200	20.8	lb/hr	188.1	lb-ft	1500	18.5	lb/hr	N/A	N/A	N/A	DDI, ECM, DOC, EGR, TC